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a driven mechanism for driving the shield member in synchronization with display of the image by the image display device so as to switch between the light transmitting portion and the light intercepting portion of the shield member.

REMARKS

Claims 1-13 are pending in the present application. Claim 1 has been amended herein.

I. FORMAL MATTERS

Applicant respectfully requests the Examiner to indicate whether the formal drawings filed on March 24, 2003 are acceptable.

Applicant notes with appreciation that the previous Office Actions (April 22, 2002 and September 19, 2002) acknowledged the claim to priority and indicated that the certified copies of the priority documents filed on September 22, 2000 have been received.

II. PRIOR ART REJECTIONS

A. Claim 1

Claim 1 is rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 5,825,347 (Prinsen). This rejection is traversed.

The Examiner relies on column 5, lines 28-35 of Prinsen. This section of Prinsen discloses a conventional screen saver. Applicant submits that Prinsen does not teach or suggest a shield member comprising a light transmitting portion and a light intercepting portion, and a drive mechanism that drives the shield member in synchronization with display of the image by the image display device so as to switch between the light transmitting portion and the light intercepting portion of the shield member, as recited by claim 1. This provides an image display apparatus which is capable of attaining substantial impulse-type drive in an image display device that is driven by a hold-type drive, and which exhibits proper moving-image performance without causing image contrast reduction. The

conventional screen saver of Prinsen cannot attain these effects.

Further, Applicant submits that this screen saver program of Prinsen does not include a drive mechanism that drives a shield member "in synchronization with display of the image by the image display device," as recited by claim 1. The Examiner asserts that the screen saver shuts off the displayed image after "a predetermined length of time in which no input by the user is detected." Applicant submits that this is not "in synchronization with display of the image by the image display device." Rather, this shutting off of the image is based upon the amount of time in which no input by the user is detected, as asserted by the Examiner. In fact, the triggering of the screen save is completely independent of the display of the image.

Therefore, Applicant submits that Prinsen does not teach each and every feature of claim 1. Thus, Applicant submits that the rejection of claim 1 under 35 U.S.C. § 102(a) is overcome.

B. Claims 1 and 5

Claims 1 and 5 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,023,255 (Bell). This rejection is traversed.

Regarding claim 1, relying on Fig. 4 of Bell, the Examiner asserts that Bell teaches a display image, which generates the moving image 4 using a traveling-message display 7 comprising an array of light-emitting diodes. Bell discloses an imaging device comprising a mask 2 including an image 1 that is overlaid on a moving image 4. The image that is perceived by an observer will be either the moving image 4 or the image of the mask 2 based upon the tracking motion of the observer's eyes. For example, an observer whose eyes track the motion of the moving image 4, will perceive the moving image "TIME 21:34". An observer whose eyes remain fixed on the mask 2, will perceive the image of the mask "TOURNEAU" (see column 3, lines 20-36). Fig. 4 of Bell discloses a similar device, but includes a traveling message display 7 for the moving image.

Applicant submits that Bell does not teach or suggest a shield member

comprising a light transmitting portion and a light intercepting portion, and a drive mechanism that drives the shield member in synchronization with display of the image by the image display device so as to switch between the light transmitting portion and the light intercepting portion of the shield member, as recited by claim 1, on which claim 5 depends. This provides an image display apparatus which is capable of attaining substantial impulse-type drive in an image display device that is driven by a hold-type drive, and which exhibits proper moving-image performance without causing image contrast reduction. The display device of Bell cannot attain these effects.

Also, Applicant submits that Bell does not teach or suggest "an image display device driven in a continuous light-emitting mode," as recited by claim 1, on which claim 5 depends. Rather, the display shown in Fig. 4 of Bell includes little, white, square light sources 1 (Fig. 1), and an array of light-emitting diodes 19 (Fig. 4), which is not "an image display device driven in a continuous light-emitting mode," as recited in claim 1.

Further, Applicant submits that the device of Bell does not include a "drive mechanism for driving the shield member in synchronization with display of the image display device," as recited by claim 1, on which claim 5 depends. The mask 2/8 of Bell is not driven at all. Rather, the mask 2/8 is overlaid the moving image 4/7/9 (see Figs. 1, 4 and 5; column 2, line 66 – column 3, line 4; and column 4, lines 3-5). As shown in Figs. 3a – 3f, the position of the mask 2 remains constant as the moving image 4 moves behind it (see column 3, lines 15-25).

Therefore, since Bell fails to teach or suggest all of the elements of claims 1 and 5, Applicant submits that Bell does not anticipate these claims. Thus, Applicant submits that the rejection of claims 1 and 5 under 35 U.S.C. § 102(e) is improper.

C. Claims 2-4 and 7-12

Claims 2-4 and 7-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prinsen. This rejection is traversed.

Regarding claims 2-4, the Examiner asserts that it would have been obvious to apply a transmission type or a reflection type LCD to the device of Prinsen.

As presented above, Applicant submits that Prinsen does not teach or suggest the features of claim 1, on which claims 2-4 and 7-12 depend.

Also, Applicant submits that Prinsen does not mechanically intercept light, as recited by claims 2, 3, and 4. Regarding claim 7, Applicant submits that Prinsen does not teach or suggest to drive a shield member "in synchronization with a vertical sync signal to carry out the shutting off of the image," as recited by claim 7. Rather, the screen saver of Prinsen completely replaces the image displayed before the triggering of the screen saver. Further, regarding claim 9, Applicant submits that the screen saver of Prinsen does not shut off an image in an interval between frames, as recited by claim 9. The present invention is not a screen saver. Rather, it is a device that can improve the quality of the image displayed by a display screen by minimizing contrast reduction.

Further, regarding claim 8, on which claims 9-12 depend, Applicant submits that Prinsen does not teach or suggest a shield member comprising a liquid crystal optical shutter, as recited by claim 8. Because Prinsen does not teach or suggest a liquid crystal optical shutter, Applicant submits that there is no teaching or suggestion to intercept light applied to and from an image display device, as recited by claims 10 and 11, respectively.

Therefore, since Prinsen does not teach each and every feature of claims 2-4 and 7-12, Applicant submits that the rejection of claims 2-4 and 7-12 under 35 U.S.C. § 103(a) is improper.

D. Claims 6 and 13

Claims 6 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prinsen in view of U.S. Patent No. 5,828,427 (Faris). This rejection is traversed.

The Examiner asserts that Prinsen teaches all of the limitations of claims 6

and 13 except a liquid crystal device that is a projection device for magnifying and projecting light. As presented above, Applicant submits that Prinsen does not teach or suggest the features of claim 1, on which claims 6 and 13 depend. Applicant submits that Faris fails to make up for the above-noted deficiencies of Prinsen because Faris teaches that the rear panel 21 is an optically opaque panel (column 2, lines 50-55). Therefore, since the combination of Prinsen and Faris fails to form the invention defined by claim 6 and 13, Applicant submits that the rejection of claims 6 and 13 under 35 U.S.C. § 103(a) is improper.

Applicant believes that no additional fees are due for the subject application. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. 04-1105.

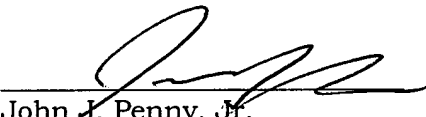
Respectfully submitted,

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**VERSIONS OF AMENDMENTS WITH MARKINGS TO INDICATE ADDITIONS AND
DELETIONS**

IN THE CLAIMS:

1. (Twice Amended) An image display apparatus comprising:
 - an image display device driven in a continuous light-emitting mode, for displaying an image;
 - a shield member including a light transmitting portion and a light intercepting portion, capable of shutting off an image displayed by the image display device, for a constant period; and
 - a driven mechanism for driving the shield member in synchronization with display of the image by the image display device so as to switch between the light transmitting portion and the light intercepting portion of the shield member.